Calendar No. 180

106TH CONGRESS
1ST SESSION

S. 1287

[Report No. 106–98]

A BILL

To provide for the storage of spent nuclear fuel pending completion of the nuclear waste repository, and for other purposes.

JUNE 24, 1999

Read twice and placed on the calendar

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IN THE SENATE OF THE UNITED STATES

JUNE 24, 1999

Mr. MURKOWSKI, from the Committee on Energy and Natural Resources, reported the following original bill; which was read twice and placed on the calendar

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A BILL

To provide for the storage of spent nuclear fuel pending completion of the nuclear waste repository, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the ''Nuclear Waste Policy Amendments Act of 1999''.

SEC. 2. DEFINITIONS.

For purposes of this Act—

(1) the term ''contract holder'' means a party to a contract with the Secretary of Energy for the disposal of spent nuclear fuel or high-level radioactive waste entered into pursuant to section 302(a) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 1022(a)); and

(2) the terms ''Administrator'', ''civilian nuclear power reactor'', ''Commission'', ''Department'', ''disposal'', ''high-level radioactive waste'', ''Indian tribe'', ''repository'', ''reservation'', ''Secretary'', ''spent nuclear fuel'', ''State'', ''storage'', ''Waste Fund'', and ''Yucca Mountain site'' shall have the meanings given such terms in section 2 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101).

TITLE I—STORAGE AND DISPOSAL

SEC. 101. PROGRAM SCHEDULE.

(a) IN GENERAL.—The President, the Secretary, and the Nuclear Regulatory Commission shall carry out their duties under this Act and the Nuclear Waste Policy Act of 1982 by the earliest practicable date consistent with the public interest and applicable provisions of law.

(b) MILESTONES.—

(1) The Secretary shall make a final decision whether to recommend the Yucca Mountain site for

development of the repository to the President by December 31, 2001;

(2) The President shall make a final decision whether to recommend the Yucca Mountain site for development of the repository to the Congress by March 31, 2002;

(3) The Nuclear Regulatory Commission shall make a final decision whether to authorize construction of the repository by December 31, 2006; and

(4) As provided in subsection (c), the Secretary shall begin receiving waste at the repository site at the earliest practicable date after receiving authorization from the Nuclear Regulatory Commission.

(c) RECEIPT FACILITIES.—

(1) Concurrent with the submission of an application for a construction authorization pursuant to section 114(b) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10134(b)), the Secretary shall apply to the Commission for a license to receive and possess spent nuclear fuel and high-level radioactive waste at surface facilities within the geologic repository operations area for the receipt, handling, packaging, and storage prior to emplacement.

(2) Concurrent with the issuance of the construction authorization under section 114(b) of the

Nuclear Waste Policy Act of 1982, the Commission shall issue a license authorizing receipt and possession of spent nuclear fuel and high-level radioactive waste at surface facilities within the geologic repository operations area for the purposes in subsection (c)(1). The Commission shall issue this license in accordance with such standards as the Commission finds are necessary to protect the public health and safety.

(d) NOTICE OF NONCOMPLIANCE.—If, at any time, the Secretary, the President, or the Nuclear Regulatory Commission determines that the Secretary, President, or Commission, as appropriate, cannot meet a milestone under subsection (b), the Secretary, President, or Commission, as appropriate, shall immediately notify Congress—

(1) that the deadline will not be met and the reason it will not be met; and

(2) the date on which the milestone will be met.

SEC. 102. BACKUP STORAGE CAPACITY.

(a) AUTHORIZATION.—Subject to section 105(d), the Secretary shall enter into a contract under this subsection with any person generating or owning spent nuclear fuel that meets the requirements of section 135(b)(1) (A) and

(B) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10155(b)(1) (A) and (B)) to—

(1) take title at the civilian nuclear power reactor site to such amounts of spent nuclear fuel from the civilian nuclear power reactor as the Commission determines cannot be stored onsite; and

(2) transport such spent nuclear fuel to, and store such spent nuclear fuel at—

(A) the repository site after the Commission has authorized construction of the repository without regard to the Secretary's Acceptance Priority Ranking Report or Annual Capacity Report; or

(B) a privately owned and operated independent spent fuel storage facility licensed by the Nuclear Regulatory Commission.

SEC. 103. REPOSITORY LICENSING.

(a) Section 801 of the Energy Policy Act of 1992 is repealed.

(b) Section 121 of the Nuclear Waste Policy Act of 1982 is amended to read as follows:

''SEC. 121. (a) REPOSITORY LICENSING STANDARDS.—The Commission shall establish standards for protection of the public and the environment from releases

of radioactive materials or radioactivity from the repository, consistent with the following:

''(1) RISK STANDARD.—The standard for protection of the public and environment from releases of radioactive materials or radioactivity from the repository after permanent closure shall limit the lifetime risk to the average member of the critical group of premature death from cancer due to such releases of approximately, but not greater than, 1 in 1000.

''(2) ESTABLISHMENT OF OVERALL SYSTEM PERFORMANCE OBJECTIVE.—The Commission shall implement the standard in paragraph (1) by establishing, by rule, an overall system performance objective for expected annual dose to the average member of the critical group. The Commission shall not promulgate performance objectives for the repository in the form of release limits or contaminant levels for individual radionuclides discharged from the repository.

''(3) ASSUMPTION AND FACTORS.—The Commission shall specify, by rule, values for all of the assumptions deemed necessary to apply the overall system performance objective in a licensing proceeding for the repository, including reference bio-

sphere and size characteristics of the critical group. For purposes of establishing the overall system performance objective in paragraph (2) and making the findings in subsection (b), the Commission shall not—

"(A) consider climate regimes that are substantially different from those that have occurred during the previous 100,000 years at the Yucca Mountain site;

"(B) consider catastrophic events where the health consequences of individual events themselves to the critical group can be reasonably assumed to exceed the health consequences due to the impact of the events on repository performance; and

"(C) base the overall system performance objective in paragraph (2) or the finding in subsection (b) on scenarios involving human intrusion into the repository following repository closure, although the Commission may consider the consequences of an assumed human intrusion scenario to determine if repository performance would be substantially degraded by a single instance of human intrusion during the first 1,000 years after repository closure.

''(4) DEFINITIONS.—As used in this section, the term 'critical group' means a small group of people that is—

''(A) representative of individuals expected to be at highest risk of premature death from cancer as a result of discharges of radionuclides from the repository;

''(B) relatively homogeneous with respect to expected radiation dose, which shall mean that there shall be no more than a factor of 10 in variation in individual doses among members of the group; and

''(C) selected using reasonable assumptions concerning lifestyle, occupation, diet and eating habits, technological sophistication, and other relevant social and behavioral factors that are based on reasonably available information on inhabitants and conditions in the area within a 50-mile radius surrounding Yucca Mountain when the group is defined.

''(b) APPLICATION OF OVERALL SYSTEM PERFORMANCE OBJECTIVE.—The Commission shall issue a construction authorization, license to dispose of spent nuclear fuel and high-level radioactive waste in the repository, and license amendment to permit permanent closure of the re-

pository, upon a finding of reasonable assurance, making allowance for the time period, hazards, and uncertainties involved, that for the first 10,000 years following closure of the repository, the overall system performance established pursuant to subsection (a) will be met. The finding of reasonable assurance shall be based on regulatory insight gained by the Commission through use of predictive models, supported, to the extent deemed practicable by the Commission, by data from field and laboratory tests, site-specific monitoring, and natural analog studies and supplemented, as necessary, by expert judgment.

''(c) ENVIRONMENTAL IMPACT STATEMENT.—The promulgation of standards or criteria in accordance with the provisions of this section shall not require the preparation of an environmental impact statement under section 102(2)(C) of the National Environmental Policy Act of 1969 (42 U.S.C. 4332(2)(C)) or any environmental review under subparagraph (E) or (F) of section 102(2) of such Act.''.

(c) GUIDELINES.—Section 112(a) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10132(a)) is amended by adding, at the end of the section, the following; ''The Secretary's guidelines shall not be inconsistent with any standards promulgated under section 121, and to the extent practicable, any conclusions of the Secretary regard-

ing site suitability shall be based on an assessment of total system performance of the repository.''.

(d) CAPACITY.—Section 114 of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10134) is amended—

(1) in subsection (b) by inserting at the end: ''In developing an application for authorization to construct the repository, the Secretary shall seek to maximize the capacity of the repository.'', and

(2) in subsection (d) by striking ''The Commission decision approving the first such application . . .'' through the period at the end of the sentence.

SEC. 104. NUCLEAR WASTE FEE.

The last sentence of section 302(a)(4) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222(a)(4)) is amended to read as follows:

''The adjusted fee proposed by the Secretary shall be effective upon enactment of a joint resolution or other provision of law specifically approving the adjusted fee.''

SEC. 105. SETTLEMENT AGREEMENTS.

(a) IN GENERAL.—The Secretary may, upon the request of any person with whom he has entered into a contract under section 302(a) of the Nuclear Waste Policy

Act of 1982 (42 U.S.C. 10222(a), enter into a settlement agreement with the contract holder to—

(1) relieve any harm caused by the Secretary's failure to meet the Department's commitment, or

(2) settle any legal claims against the United States arising out of such failure.

(b) TYPES OF RELIEF.—Pursuant to a settlement agreement entered into under this section, the Secretary may—

(1) take title to the contract holder's spent nuclear fuel, notwithstanding section 302(a)(5) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222(a)(5));

(2) provide spent nuclear fuel storage casks to the contract holder;

(3) take title to and operate an existing dry cask storage facility at the contract holder's site;

(4) compensate the contract holder for the cost of providing spent nuclear fuel storage at the contract holders' storage facility; or

(5) provide any combination of the foregoing.

(c) SCOPE OF RELIEF.—The Secretary's obligation to take title to a contract holder's spent nuclear fuel, provide storage casks, or compensate a contract holder for the cost of providing nuclear fuel storage under a settle-

ment agreement under this section shall not exceed the Secretary's obligation to accept delivery of such spent fuel under the terms of the Secretary's contract with such contract holder under section 302(a) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222(a)) and the delivery commitment schedule annexed thereto (including any otherwise permissible assignment of rights under such schedule).

(d) WAIVER OF CLAIMS.—(1) The Secretary may not enter into a settlement agreement under subsection (a) or a backup contract under section 102(a) with any contract holder unless the contract holder—

(A) makes an election within 180 days after the date of enactment of this Act to enter into a settlement agreement, and

(B) as part of such settlement agreement, waives any claim for damages against the United States arising out of the Secretary's failure to begin disposing of such person's high-level waste or spent nuclear fuel by January 31, 1998.

(2) Nothing in this subsection shall be read to require a contract holder to waive any future claim against the United States arising out of the Secretary's failure to meet any new obligation assumed under settlement agreement or backup storage agreement.

(e) SOURCE OF FUNDS.—Notwithstanding section 302(d) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222(d)), the Secretary may not make expenditures from the Nuclear Waste Fund for any costs that may be incurred by the Secretary pursuant to a settlement agreement or backup storage contract under this Act except—

(1) the cost of acquiring and loading spent nuclear fuel casks;

(2) the cost of transporting spent nuclear fuel from the contract holder's site to the repository; and

(3) any other cost incurred by the Secretary pursuant to a settlement agreement or backup storage contract that would have been incurred by the Secretary under the contracts entered into under section 302(a) of the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10222(a)) notwithstanding their amendment pursuant to this Act.

(f) SAVINGS CLAUSE.—(1) Nothing in this section shall limit the Secretary's existing authority to enter into settlement agreements or address shutdown reactors and any associated public health and safety or environmental concerns that may arise.

(2) Nothing in this Act modifies or alters obligations imposed upon the Federal Government by the United

States District Court of Idaho in an order entered on October 17, 1995 in United States v. Batt (No. 91–0054–S–EJL).

SEC. 106. ACCEPTANCE SCHEDULE.

The acceptance schedule shall be implemented in accordance with the following:

(1) PRIORITY RANKING.—Acceptance priority ranking shall be determined by the Department's 'Acceptance Priority Ranking' report.

(2) ACCEPTANCE RATE.—Beginning in the year of the issuance of a license to receive and possess spent nuclear fuel and high-level radioactive waste under section 101(c), the Secretary's acceptance rate for spent nuclear fuel shall be no less than the following: 1,200 Metric Tons Uranium (MTU) in year 1 and 1,200 MTU in year 2, 2,000 MTU in year 3 and 2,000 MTU in year 4, 2,700 MTU in year 5, and 3,000 MTU annually thereafter.

(3) OTHER ACCEPTANCES.—Subject to the conditions contained in the license to receive and possess spent nuclear fuel and high-level radioactive waste issued under section 101(c), of the amounts provided for in paragraph (2) for each year, not less than one-sixth shall be—

(A) spent nuclear fuel or civilian high-level radioactive waste of domestic origin from civilian nuclear power reactors that have permanently ceased operation on or before the date of enactment of the Nuclear Waste Policy Act Amendments of 1999;

(B) spent nuclear fuel from foreign research reactors, as necessary to promote nonproliferation activities; and

(C) spent nuclear fuel and high-level radioactive waste from research and atomic energy defense activities, including spent nuclear fuel from naval reactors;

Provided, however, That the Secretary shall accept not less than 7.5 percent of the total quantity of fuel and high-level radioactive waste accepted in any year from the categories of radioactive materials described in subparagraphs (B) and (C) in paragraph (3). If sufficient amounts of radioactive materials are not available to utilize this allocation, the Secretary shall allocate this acceptance capacity to other contract holders.

(4) EFFECT ON SCHEDULE.—The contractual acceptance schedule shall not be modified in any way as a result of the Secretary's acceptance of any ma-

terial other than contract holders' spent nuclear fuel and high-level radioactive waste.

TITLE II—TRANSPORTATION

SEC. 201. TRANSPORTATION PLANNING.

(a) TRANSPORTATION READINESS.—The Secretary—

(1) shall take such actions as are necessary and appropriate to ensure that the Secretary is able to transport safely spent nuclear fuel and high-level radioactive waste from any site where such spent nuclear fuel or high-level radioactive waste is generated or stored to the Yucca Mountain site, using routes that minimize, to the maximum practicable extent consistent with Federal requirements governing transportation of hazardous materials, transportation of spent nuclear fuel and high-level radioactive waste through populated areas; and

(2) as soon as is practicable following the enactment of this Act, the Secretary shall, in consultation with the Secretary of Transportation and affected States and tribes, and after an opportunity for public comment, develop and implement a comprehensive management plan that ensures safe transportation of spent nuclear fuel and high-level radio-

active waste from the sites designated by the contract holders to the Yucca Mountain site.

(b) TRANSPORTATION PLANNING.—In conjunction with the development of the logistical plan in accordance with subsection (a), the Secretary shall update and modify, as necessary, the Secretary's transportation institutional plans to ensure that institutional issues are addressed and resolved on a schedule to support the commencement of transportation of spent nuclear fuel and high-level radioactive waste to the Yucca Mountain site no later than December 31, 2006. Among other things, such planning shall provide a schedule and process for addressing and implementing, as necessary, transportation routing plans, transportation contracting plans, transportation training in accordance with section 202, public education regarding transportation of spent nuclear fuel and high-level radioactive waste, and transportation tracking programs.

(c) SHIPPING CAMPAIGN TRANSPORTATION PLANS.—

(1) IN GENERAL.—The Secretary shall develop a transportation plan for the implementation of each shipping campaign (as that term is defined by the Secretary) from each site at which spent nuclear fuel or high-level nuclear waste is stored, consistent with

the principles and procedures stated in Department of Energy Order No. 460.2 and the Program Manager's Guide.

(2) REQUIREMENTS.—A shipping campaign transportation plan shall—

(A) be fully integrated with State and tribal government notification, inspection, and emergency response plans along the preferred shipping route or State-designated alternative route identified under subsection (d) (unless the Secretary certifies in the plan that the State or tribal government has failed to cooperate in fully integrating the shipping campaign transportation plan with the applicable State or tribal government plans); and

(B) be consistent with the principles and procedures developed for the safe transportation of transuranic waste to the Waste Isolation Pilot Plant (unless the Secretary certifies in the plan that a specific principle or procedure is inconsistent with a provision of this Act).

(d) SAFE SHIPPING ROUTES AND MODES.—

(1) IN GENERAL.—The Secretary shall evaluate the relative safety of the proposed shipping routes and shipping modes from each shipping origin to the

repository compared with the safety of alternative modes and routes.

(2) CONSIDERATIONS.—The evaluation under paragraph (1) shall be conducted in a manner consistent with regulations promulgated by the Secretary of Transportation under authority of chapter 51 of title 49, United States Code, and the Nuclear Regulatory Commission under authority of the Atomic Energy Act of 1954 (42 U.S.C. 2011 et seq.), as applicable.

(3) DESIGNATION OF PREFERRED SHIPPING ROUTE AND MODE.—Following the evaluation under paragraph (1), the Secretary shall designate preferred shipping routes and modes from each civilian nuclear power reactor and Department of Energy facility that stores spent nuclear fuel or other high-level defense waste.

(4) SELECTION OF PRIMARY SHIPPING ROUTE.—If the Secretary designates more than 1 preferred route under paragraph (3), the Secretary shall elect a primary route after considering, at a minimum, historical accident rates, population, significant hazards, shipping time, shipping distance, and mitigating measures such as limits on the speed of shipments.

(5) USE OF PRIMARY SHIPPING ROUTE AND MODE.—Except in cases of emergency, for all shipments conducted under this Act, the Secretary shall cause the primary shipping route and mode or State-designated alternative route under chapter 51 of title 49, United States Code, to be used. If a route is designated as a primary route for any reactor or Department of Energy facility, the Secretary may use that route to transport spent nuclear fuel or high-level radioactive waste from any other reactor or Department of Energy facility.

(6) TRAINING AND TECHNICAL ASSISTANCE.—Following selection of the primary shipping routes, or State-designated alternative routes, the Secretary shall focus training and technical assistance under section 202(c) on those routes.

(7) PREFERRED RAIL ROUTES.—

(A) REGULATION.—Not later than 1 year after the date of enactment of the Nuclear Waste Policy Amendments Act of 1999, the Secretary of Transportation, pursuant to authority under other provisions of law, shall promulgate a regulation establishing procedures for the selection of preferred routes for the trans-

portation of spent nuclear fuel and high-level radioactive waste by rail.

(B) INTERIM PROVISION.—During the period beginning on the date of enactment of the Nuclear Waste Policy Act of 1999 and ending on the date of issuance of a final regulation under subparagraph (A), rail transportation of spent nuclear fuel and high-level radioactive waste shall be conducted in accordance with regulatory requirements in effect on that date and with this section.

SEC. 202. TRANSPORTATION REQUIREMENTS.

(a) PACKAGE CERTIFICATION.—No spent nuclear fuel or high-level radioactive waste may be transported by or for the Secretary under this Act except in packages that have been certified for such purposes by the Commission.

(b) STATE NOTIFICATION.—The Secretary shall abide by regulations of the Commission regarding advance notification of State and tribal governments prior to transportation of spent nuclear fuel or high-level radioactive waste under this Act.

(c) TECHNICAL ASSISTANCE.—

(1) IN GENERAL.—

(A) STATES AND INDIAN TRIBES.—As provided in paragraph (3), the Secretary shall pro-

vide technical assistance and funds to States and Indian tribes for training of public safety officials of appropriate units of State, local, and tribal government. A State shall allocate to local governments within the State a portion of any funds that the Secretary provides to the State for technical assistance and funding.

(B) EMPLOYEE ORGANIZATIONS.—The Secretary shall provide technical assistance and funds for training directly to nonprofit employee organizations, voluntary emergency response organizations, and joint labor-management organizations that demonstrate experience in implementing and operating worker health and safety training and education programs and demonstrate the ability to reach and involve in training programs target populations of workers who are or will be directly engaged in the transportation of spent nuclear fuel and high-level radioactive waste or emergency response or post-emergency response with respect to such transportation.

(C) TRAINING.—Training under this section—

(i) shall cover procedures required for safe routine transportation of materials and procedures for dealing with emergency response situations;

(ii) shall be consistent with any training standards established by the Secretary of Transportation under subsection (h); and

(iii) shall include—

(I) a training program applicable to persons responsible for responding to emergency situations occurring during the removal and transportation of spent nuclear fuel and high-level radioactive waste;

(II) instruction of public safety officers in procedures for the command and control of the response to any accident involving the waste; and

(III) instruction of radiological protection and emergency medical personnel in procedures for responding to an incident involving spent nuclear fuel or high-level radioactive waste being transported.

(2) NO SHIPMENTS IF NO TRAINING.—

(A) There shall be no shipments of spent nuclear fuel and high-level radioactive waste through the jurisdiction of any State or the reservation lands of any Indian tribe eligible for grants under paragraph (3)(B) until the Secretary has made a determination that personnel in all State, local, and tribal jurisdictions on primary and alternative shipping routes have met acceptable standards of training for emergency responses to accidents involving spent nuclear fuel and high-level radioactive waste, as established by the Secretary, and unless technical assistance and funds to implement procedures for the safe routine transportation and for dealing with emergency response situations under paragraph (1)(A) have been available to a State or Indian tribe for at least 3 years prior to any shipment: *Provided, however,* That the Secretary may ship spent nuclear fuel and high-level radioactive waste if technical assistance or funds have not been made available because of

(i) an emergency, including the sudden and unforeseen closure of a highway or rail line or the sudden and unforeseen need

to remove spent fuel from a reactor because of an accident, or

(ii) the refusal to accept technical assistance by a State or Indian tribe, or

(iii) fraudulent actions which violate Federal law governing the expenditure of Federal funds.

(B) In the event the Secretary is required to transport spent fuel or high-level radioactive waste through a jurisdiction prior to 3 years after the provision of technical assistance or funds to such jurisdiction, the Secretary shall, prior to such shipment, hold meetings in each State and Indian reservation through which the shipping route passes in order to present initial shipment plans and receive comments. Department of Energy personnel trained in emergency response shall escort each shipment. Funds and all Department of Energy training resources shall be made available to States and Indian tribes along the shipping route no later than three months prior to the commencement of shipments: *Provided, however,* That in no event shall such shipments exceed 1,000 metric tons per year: *Provided further,* That no such ship-

ments shall be conducted more than four years after the effective date of the Nuclear Waste Policy Amendments Act of 1999.

(3) GRANTS.—

(A) IN GENERAL.—To implement this section, the Secretary may make expenditures from the Nuclear Waste Fund to the extent provided for in appropriation acts.

(B) GRANTS FOR DEVELOPMENT OF PLANS.—

(i) IN GENERAL.—The Secretary shall make a grant of at least $150,000 to each State through the jurisdiction of which and each federally recognized Indian tribe through the reservation lands of which a shipment of spent nuclear fuel or high-level radioactive waste will be made under this Act for the purpose of developing a plan to prepare for such shipments.

(ii) LIMITATION.—A grant shall be made under clause (i) only to a State or a federally recognized Indian tribe that has the authority to respond to incidents involving shipments of hazardous material.

(C) GRANTS FOR IMPLEMENTATION OF PLANS.—

(i) IN GENERAL.—Annual implementation grants shall be made to States and Indian tribes that have developed a plan to prepare for shipments under this Act under subparagraph (B). The Secretary, in submitting the annual departmental budget to Congress for funding of implementation grants under this section, shall be guided by the State and tribal plans developed under subparagraph (B). As part of the Department of Energy's annual budget request, the Secretary shall report to Congress on—

(I) the funds requested by States and federally recognized Indian tribes to implement this subsection;

(II) the amount requested by the President for implementation; and

(III) the rationale for any discrepancies between the amounts requested by States and federally recognized Indian tribes and the amounts requested by the President.

(ii) ALLOCATION.—Of funds available for grants under this subparagraph for any fiscal year—

(I) 25 percent shall be allocated by the Secretary to ensure minimum funding and program capability levels in all States and Indian tribes based on plans developed under subparagraph (B); and

(II) 75 percent shall be allocated to States and Indian tribes in proportion to the number of shipment miles that are projected to be made in total shipments under this Act through each jurisdiction.

(4) AVAILABILITY OF FUNDS FOR SHIPMENTS.—Funds under paragraph (1) shall be provided for shipments to a repository, regardless of whether the repository is operated by a private entity or by the Department of Energy.

(5) MINIMIZING DUPLICATION OF EFFORT AND EXPENSES.—The Secretaries of Transportation, Labor, and Energy, Directors of the Federal Emergency Management Agency and National Institute of Environmental Health Sciences, the Nuclear Regu-

latory Commission, and Administrator of the Environmental Protection Agency shall review periodically, with the head of each department, agency, or instrumentality of the Government, all emergency response and preparedness training programs of that department, agency, or instrumentality to minimize duplication of effort and expense of the department, agency, or instrumentality in carrying out the programs and shall take necessary action to minimize duplication.

(d) PUBLIC EDUCATION.—The Secretary shall conduct a program to educate the public regarding the transportation of spent nuclear fuel and high-level radioactive waste, with an emphasis on those States, units of local government, and Indian tribes through whose jurisdiction the Secretary plans to transport substantial amounts of spent nuclear fuel or high-level radioactive waste.

(e) USE OF PRIVATE CARRIERS.—The Secretary, in providing for the transportation of spent nuclear fuel and high-level radioactive waste under this Act, shall contract with private industry to the fullest extent possible in each aspect of such transportation. The Secretary shall use direct Federal services for such transportation only upon a determination by the Secretary of Transportation, in consultation with the Secretary, that private industry is un-

able or unwilling to provide such transportation services at a reasonable cost.

(f) COMPLIANCE WITH TRANSPORTATION REGULATIONS.—Any person that transports spent nuclear fuel or high-level radioactive waste under the Nuclear Waste Policy Amendments Act of 1999, pursuant to a contract with the Secretary, shall comply with all requirements governing such transportation issued by the Federal, State, and local governments, and Indian Tribes, in the same way and to the same extent that any person engaging in that transportation that is in or affects interstate commerce must comply with such requirements, as required by section 5126 of title 49, United States Code.

(g) EMPLOYEE PROTECTION.—Any person engaged in the interstate commerce of spent nuclear fuel or high-level radioactive waste under contract to the Secretary pursuant to this Act shall be subject to and comply fully with the employee protection provisions of section 20109 of title 49, United States Code (in the case of employees of railroad carriers) and section 31105 of title 49, United States Code (in the case of employees operating commercial motor vehicles), or the Commission (in the case of all other employees).

(h) TRAINING STANDARD.—

(1) REGULATION.—No later than 12 months after the date of enactment of the Nuclear Waste Policy Amendments Act of 1999, the Secretary of Transportation, pursuant to authority under other provisions of law, in consultation with the Secretary of Labor and the Commission, shall promulgate a regulation establishing training standards applicable to workers directly involved in the removal and transportation of spent nuclear fuel and high-level radioactive waste. The regulation shall specify minimum training standards applicable to workers, including managerial personnel. The regulation shall require that the employer possess evidence of satisfaction of the applicable training standard before any individual may be employed in the removal and transportation of spent nuclear fuel and high-level radioactive waste.

(2) SECRETARY OF TRANSPORTATION.—If the Secretary of Transportation determines, in promulgating the regulation required by paragraph (1), that existing Federal regulations establish adequate training standards for workers, then the Secretary of Transportation can refrain from promulgating additional regulations with respect to worker training in such activities. The Secretary of Transportation

and the Commission shall, by Memorandum of Understanding, ensure coordination of worker training standards and to avoid duplicative regulation.

(3) TRAINING STANDARDS CONTENT.—(A) If training standards are required to be promulgated under paragraph (1), such standards shall, among other things deemed necessary and appropriate by the Secretary of Transportation, provide for—

(i) a specified minimum number of hours of initial off site instruction and actual field experience under the direct supervision of a trained, experienced supervisor;

(ii) a requirement that onsite managerial personnel receive the same training as workers, and a minimum number of additional hours of specialized training pertinent to their managerial responsibilities; and

(iii) a training program applicable to persons responsible for responding to and cleaning up emergency situations occurring during the removal and transportation of spent nuclear fuel and high-level radioactive waste.

(B) The Secretary of Transportation may specify an appropriate combination of knowledge, skills,

and prior training to fulfill the minimum number of hours requirements of subparagraphs (i) and (ii).

(4) EMERGENCY RESPONDER TRAINING STANDARDS.—The training standards for persons responsible for responding to emergency situations occurring during the removal and transportation of spent nuclear and high level radioactive waste shall, in accordance with existing regulations, ensure their ability to protect nearby persons, property, or the environment from the effects of accidents involving spent nuclear fuel and high-level radioactive waste.

(5) AUTHORIZATION.—There is authorized to be appropriated to the Secretary of Transportation, from general revenues, such sums as may be necessary to perform his duties under this subsection.

TITLE III—DEVELOPMENT OF NATIONAL SPENT NUCLEAR FUEL STRATEGY.

SEC. 301. FINDINGS.

(a) Prior to permanent closure of the geologic repository in Yucca Mountain, Congress must determine whether the spent fuel in the repository should be treated as waste subject to permanent burial or should be considered an energy resource that is needed to meet future energy requirements;

(b) Future use of nuclear energy may require construction of a second geologic repository unless Yucca Mountain can safely accommodate additional spent fuel. Improved spent fuel strategies may increase the capacity of Yucca Mountain.

(c) Prior to construction of any second permanent geologic repository, the nation's current plans for permanent burial of spent fuel should be re-evaluated.

SEC. 302. OFFICE OF SPENT NUCLEAR FUEL RESEARCH.

(a) ESTABLISHMENT.—There is hereby established an Office of Spent Nuclear Fuel Research within the Office of Nuclear Energy Science and Technology of the Department of Energy. The Office shall be headed by the Associate Director, who shall be a member of the Senior Executive Service appointed by the Director of the Office of Nuclear Energy Science and Technology, and compensated at a rate determined by applicable law.

(b) ASSOCIATE DIRECTOR.—The Associate Director of the Office of Spent Nuclear Fuel Research shall be responsible for carrying out an integrated research, development, and demonstration program on technologies for treatment, recycling, and disposal of high-level nuclear radioactive waste and spent nuclear fuel, subject to the general supervision of the Secretary. The Associate Director of the Office shall report to the Director of the Office of

Nuclear Energy Science and Technology. The first such Associate Director shall be appointed within 90 days of the enactment of the Nuclear Waste Policy Act of 1999.

(c) GRANT AND CONTRACT AUTHORITY.—In carrying out his responsibilities under this Section, the Secretary may make grants, or enter into contracts, for the purposes of the research projects and activities described in (d)(2).

(d)(1) DUTIES.—The Associate Director of the Office shall involve national laboratories, universities, the commercial nuclear industry, and other organizations to investigate technologies for the treatment, recycling, and disposal of spent nuclear fuel and high-level radioactive waste.

(2) The Associate Director of the Office shall:

(A) develop a research plan to provide recommendations by 2015;

(B) identify promising technologies for the treatment, recycling, and disposal of spent nuclear fuel and high-level radioactive waste;

(C) conduct research and development activities for promising technologies;

(D) ensure that all activities include as key objectives minimization of proliferation concerns and

risk to health of the general public or site workers, as well as development of cost-effective technologies;

(E) require research on both reactor- and accelerator-based transmutation systems;

(F) require research on advanced processing and separations;

(G) encourage that research efforts include participation of international collaborators;

(H) be authorized to fund international collaborators when they bring unique capabilities not available in the United States and their host country is unable to provide for their support;

(I) ensure that research efforts with this Office are coordinated with research on advanced fuel cycles and reactors conducted within the Office of Nuclear Energy Science and Technology.

(e) REPORT.—The Associate Director of the Office of Spent Nuclear Fuel Research shall annually prepare and submit a report to the Congress on the activities and expenditures of the Office that discusses progress being made in achieving the objectives of paragraph (b).